REMARKS

Amendments to the Claims

Applicants presently cancel system claims 8-14 and computer program product claims 15-21, leaving only method claims in the present application. In amending the claims in the present application, Applicants do not concede that the claims as originally filed were not in a condition for allowance nor do these cancellations represent a disclaimer of the recited subject matter. Rather, Applicants reserve the right to pursue these cancelled system and product claims in one or more continuation applications. Applicants believe themselves entitled to pursue these claims in additional applications because the system and product claims are directed to an invention in a different statutory category than are the method claims that remain in this application. Applicants believe they are entitled to have claims directed to inventions in separate statutory categories issued in separate patents.

Applicants also amend claim 1 of the present application to include limitations previously found in claims 2 and 7 of Applicants' original application. As such, claims 2 and 7 are cancelled in this Response. Applicants further amend claim 1 to include the limitation "wherein the accept processing time is the time interval between accepting connections." Support for this amendment is found in Applicants' original specification at page 19, line 10 – page 20, line 5. Applicants also amend claim 1 to include the limitation "wherein the connection request arrival interval is the inverse of the connection request rate, the rate at which connection requests arrive and are placed in the connection backlog queue." Support for this amendment is found in Applicants' original specification at page 18, lines 4-14. Applicants submit that these amendments do not introduce any new matter into the specification and submit that the claims as currently amended are in condition for allowance.

Claim Rejections - 35 U.S.C. § 102 Over Firoiu

In the Office Action, claims 1, 3-8, 10-15, and 17-21 stand rejected under 35 U.S.C. § 102 as being anticipated by Firoiu, *et al.* (U.S. Patent No. 7,149,664). As discussed above, claims 7, 10-15, and 17-21 are cancelled in this Response. To anticipate remaining claims 1 and 3-6 under 35 U.S.C. § 102, Firoiu must disclose and enable each and every element and limitation recited in the claims of the present application. As presently amended, claim 1 now includes limitations previously found in dependent claim 2 of Applicants' original application. The Office Action admits at pages 6-7 that Firoiu does not disclose the limitations previously found in dependent claim 2 of Applicants' original application. The limitations of former claim 2 are now recited in newly amended claim 1 – so that Firoiu can no longer be said to disclose all the elements of claim 1. Because Firoiu does not disclose and enable each and every element and limitation of amended claim 1, Firoiu does not anticipate claim 1 of the present application. The rejections under 35 U.S.C. § 102 should be withdrawn.

Relations Among Claims

Claims 3-6 depend from independent claim 1. Each dependent claim includes all of the limitations of the independent claim from which it depends. Because Firoiu does not disclose or enable each and every element of independent claim 1, Firoiu also does not disclose or enable each and every element of the dependent claims of the present application. As such, claims 3-6 are also patentable and should be allowed.

Claim Rejections – 35 U.S.C. § 103 Over Firoiu

In the Office Action, claims 2, 9, and 16 stand rejected for obviousness under 35 U.S.C. § 103 as being unpatentable over Faroiu and an obvious variation of Faroiu. As discussed above, claims 2, 9, and 16 are cancelled in this Response, and the limitations previously found in claim 2 have been incorporated into claim 1 by amendment. The question of whether the remaining claims in the present application are obvious or not is examined in light of: (1) the scope and content of the prior art; (2) the differences between the claimed

invention and the prior art; (3) the level of ordinary skill in the art; and (4) any relevant secondary considerations, including commercial success, long felt but unsolved needs, and failure of others. *KSR Int'l Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 2 (U.S. April 30, 2007). Although Applicants recognize that such an inquiry is an expansive and flexible one, the Office Action must nevertheless demonstrate a prima facie case of obviousness to reject Applicants' claims for obviousness under 35 U.S.C. § 103(a). *In re Khan*, 441 F.3d 977, 985-86 (Fed. Cir. 2006). Independent claim 1 of the present application, as currently amended, recites:

1. A method for dynamically provisioning computer system resources, the method comprising:

monitoring a connection performance parameter of a data communications port operating in a data communications protocol having a connection backlog queue having a connection backlog queue size, the connection backlog queue comprising one or more connection requests,

wherein monitoring a connection performance parameter of a data communications port further comprises:

receiving a connection request and determining that the connection backlog queue is full; and

calculating an average accept processing time and calculating an average connection request arrival interval for the connection backlog queue, wherein:

the accept processing time comprises the time interval between accepting connections; and

the connection request arrival interval comprises the inverse of the connection request rate, the connection request rate comprising a rate at which connection requests arrive and are placed in the connection backlog queue; and

changing the connection backlog queue size in dependence upon the monitored connection performance parameter without interrupting the operation of the data communications port and without user intervention wherein changing the connection backlog queue size further comprises increasing the connection backlog queue size if the accept processing time is greater than the connection request arrival interval..

Firoiu Does Not Teach Or Suggest Claim 1 Of The Present Application

Claim 1 of the present application recites a method for dynamically provisioning computer system resources. More specifically, claim 1 of the present application recites monitoring a connection performance parameter of a data communications port having a connection backlog queue, and changing the connection backlog queue size in dependence upon the monitored connection performance parameter without interrupting the operation of the data communications port and without user intervention as claimed in the present application. In contrast to the claims of the present application, Firoiu merely discloses a general method for modeling dynamics of a queue, and a queue law function that is "an approximation of the average queue size of an exemplary queue in a node based upon the traffic characteristics and the percentage of dropped packets." Firoiu at column 4, lines 29-30. The mere fact that Firoiu discloses methods for modeling dynamics of a queue does not, therefore, render all methods of queue management obvious within the meaning of 35 U.S.C. § 103. Without teaching or suggesting each and every express limitation recited in the present application, Firoiu cannot be used to establish a prima facie case of obviousness against the claims of the present application. Consider, as examples of limitations not taught or suggested by Firoiu, the claim

limitations discussed below which are included in claim 1 of the present application by an amendment in this Response.

Firoiu Does Not Teach Or Suggest Calculating An Average Accept Processing Time And Calculating An Average Connection Request Arrival Interval For A Connection Backlog Queue

Claim 1 of the present application is amended to include the following limitations previously found in dependent claim 7 of Applicants' original application: calculating an average accept processing time and calculating an average connection request arrival interval for a connection backlog queue. The Office Action, at page 5, takes the position that Firoiu at column 1, lines 14-15, column 4, lines 34-35, Figure 13, and Figure 15 discloses this limitation. Applicants respectfully note in response, however, that what Figure 13 in fact discloses is FIG. 13 is a block diagram of an embodiment of a congestion control module containing a processor and a queue estimator. In addition, what Firoiu at Figure 15 discloses is a graphical representation of the sending rate verses time for an exemplary communications network. Furthermore, what Firoiu at column 1, lines 14-15, in fact discloses is:

> The invention generally relates to networks and, more particularly, the invention relates to the management of a queue at a node in a network.

And what Firoiu at column 4, lines 34-35, actually discloses is:

G(p)=min(B,c(T.sub.R.sup.-1(p,c/n)-R.sub.0))

That is, Firoiu at the cited reference points discloses the management of a queue at a node in a network through the use of a queue law equation. Firoiu's management of a queue at a node in a network through the use of a queue law equation, however, does not teach or suggest calculating an average accept processing time and calculating an average connection request arrival interval for a connection backlog queue as claimed in the present application. The accept processing time, as claimed in the present application, is the time interval between accepting connections. Furthermore, the connection request arrival interval, as claimed in the present application, is the inverse of the connection request rate – the rate at which connection requests arrive and are placed in the

connection backlog queue. Firoiu does not teach or suggest calculating the time interval between accepting connections or calculating the inverse of the connection request rate – the rate at which connection requests arrive and are placed in the connection backlog queue. Because Firoiu does not teach or suggest each and every limitation of claim 1 of the present application, Firoiu cannot be used to establish a prima facie case of obviousness and the rejections 35 U.S.C. § 103 should be withdrawn.

Furthermore, as mentioned above, Firoiu does not disclose connection requests as admitted at page 7 of the Office Action. Firoiu therefore cannot possibly teach or suggest an average accept processing time and calculating an average connection request arrival interval for a connection backlog queue as claimed in the present application since the average accept processing time and average connection request arrival interval are each determined in dependence upon receiving connection requests. Because Firoiu does not teach or suggest each and every limitation of claim 1 of the present application, Firoiu cannot be used to establish a prima facie case of obviousness and the rejections 35 U.S.C. § 103 should be withdrawn.

Firoiu Does Not Teach Or Suggest Changing The Connection Backlog Queue Size As Claimed In The Present Application

Claim 1 of the present application recites the following limitation: changing the connection backlog queue size in dependence upon the monitored connection performance parameter without interrupting the operation of the data communications port and without user intervention, further comprising increasing the connection backlog queue size if the accept processing time is greater than the connection request arrival interval. As discussed above, Firoiu does not teach or suggest calculating an average accept processing time and calculating an average connection request arrival interval for a connection backlog queue. As such, Firoiu cannot possibly teach or suggest changing the connection backlog queue size in dependence upon an average accept processing time and calculating an average connection request arrival interval as claimed here - increasing the connection backlog queue size if the accept processing time is greater than the connection request arrival interval. Because Firoiu does not teach or suggest each and

every limitation of claim 1 of the present application, Firoiu cannot be used to establish a prima facie case of obviousness and the rejections 35 U.S.C. § 103 should be withdrawn.

Relations Among Claims

Claims 3-6 depend from independent claim 1. Each dependent claim includes all of the limitations of the independent claim from which it depends. Because Firoiu does not teach or suggest each and every element of independent claim 1, Firoiu also does not teach or suggest each and every element of the dependent claims of the present application. As such, claims 3-6 are also patentable and should be allowed.

Conclusion

Claims 1 and 3-6 stand rejected under 35 U.S.C. § 102 as being anticipated by Firoiu. Firoiu does not disclose each and every element of Applicants' claims. Firoiu therefore does not anticipate Applicants' claims. Claims 1 and 3-6 are therefore patentable and should be allowed. Applicants respectfully request reconsideration of claims 1 and 3-6.

The Commissioner is hereby authorized to charge or credit Deposit Account No. 09-0447 for any fees required or overpaid.

Respectfully submitted,

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